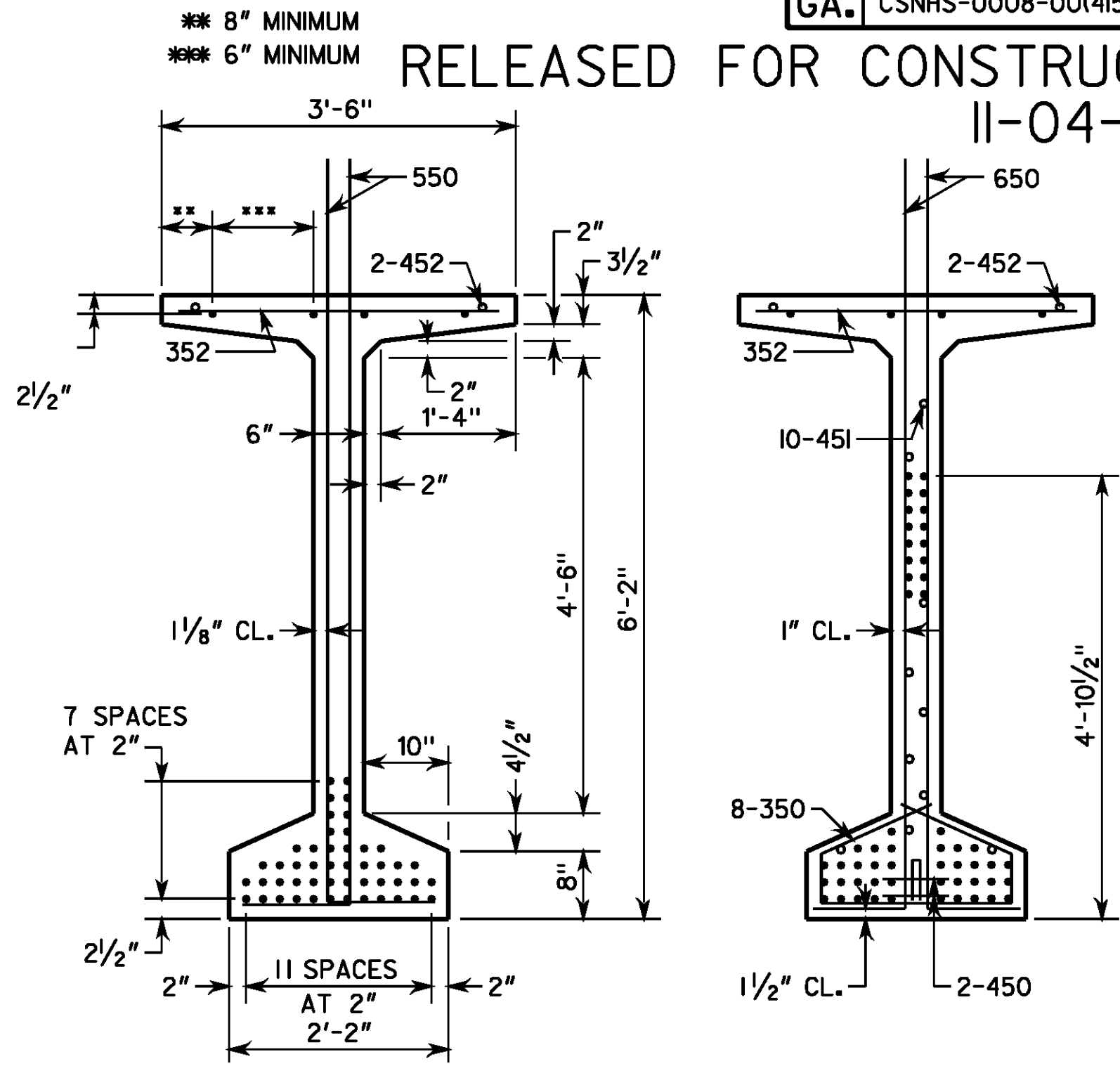
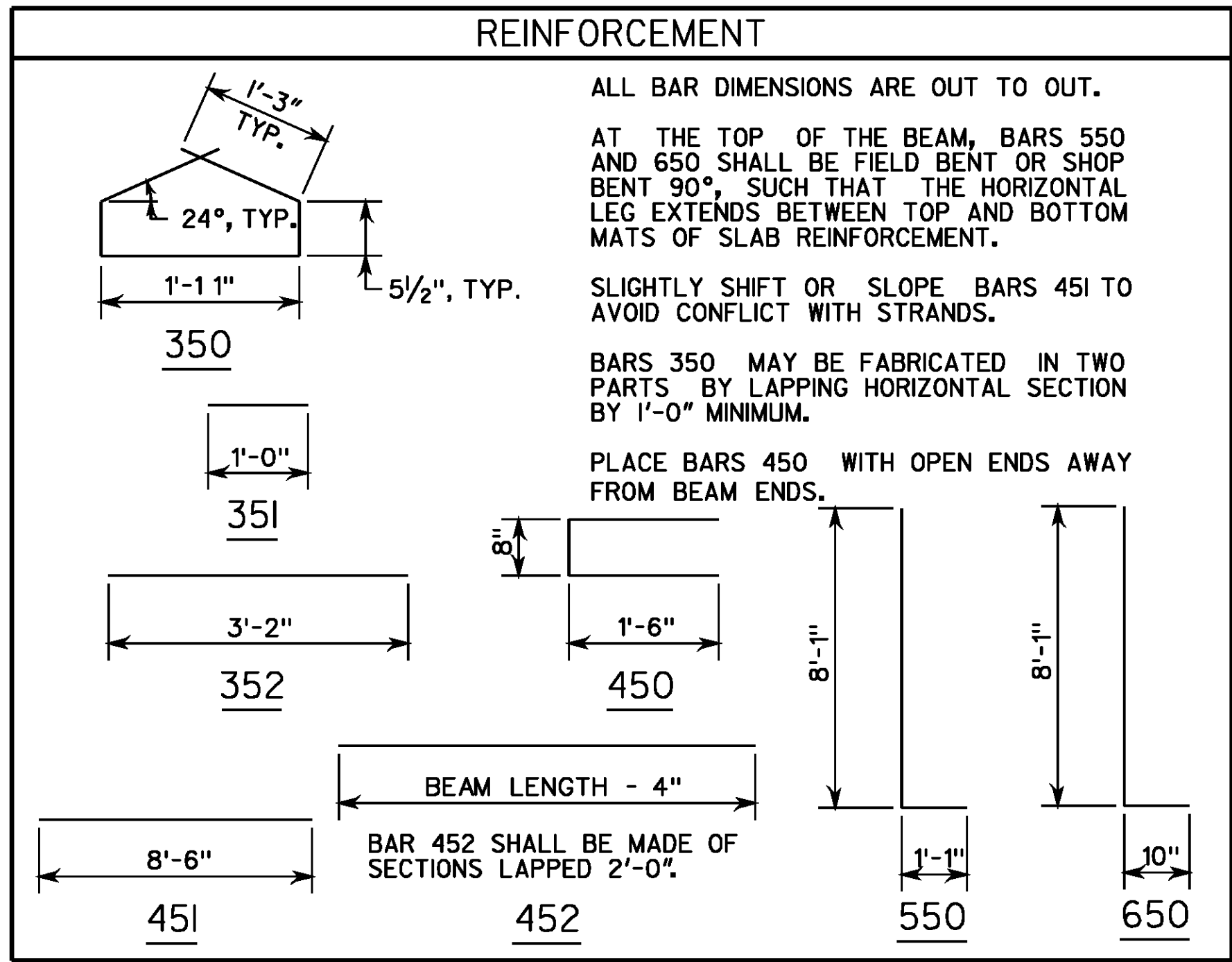


ELEVATION

NOTES

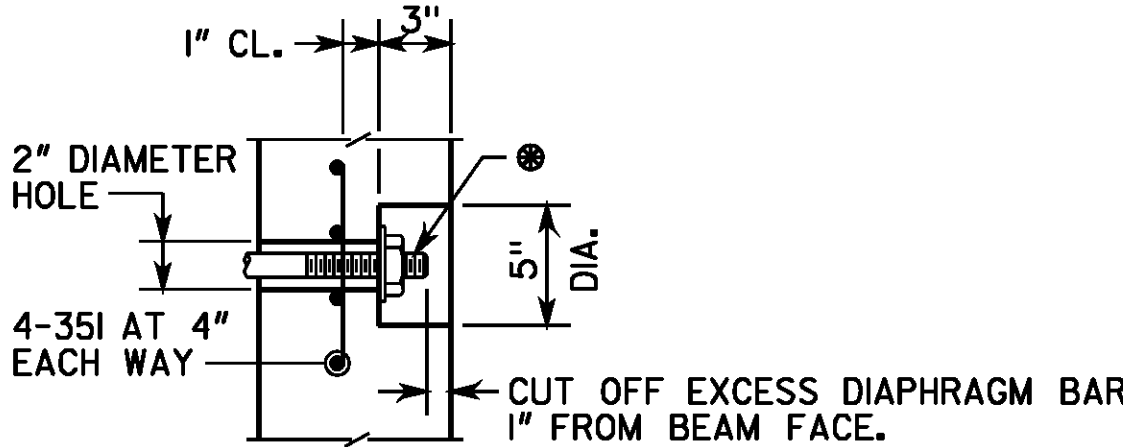
- BEAMS SHALL BE MAINTAINED IN AN UPRIGHT POSITION AT ALL TIMES AND SHALL BE PICKED UP WITHIN 9'-0" FROM THEIR ENDS. DISREGARDING THIS REQUIREMENT COULD LEAD TO COLLAPSE OF THE BEAM. PICK-UPS SHALL BE EMBEDDED TO WITHIN 4" OF THE BOTTOM OF THE BEAM. DETAILS OF PICK-UPS SHALL BE INCLUDED IN THE SHOP DRAWINGS.
- CHAMFER EDGES OF BEAMS  $\frac{1}{2}"$ ,  $\frac{3}{4}"$  OR 1".
- HORIZONTAL DIMENSIONS ARE IN PLACE DIMENSIONS. THE BEAM LENGTH INCLUDES THE  $\frac{1}{8}"$  EPOXY MORTAR AT EACH END. SHOP DRAWINGS SHALL ADJUST HORIZONTAL DIMENSIONS FOR GRADE AND FABRICATION EFFECTS SUCH AS SHRINKAGE AND ELASTIC SHORTENING.
- AT CL BEARING, FORM A  $\frac{1}{2}"$  DIAMETER X 7" DEEP HOLE AT THE FIXED ENDS AND A 6" X  $\frac{1}{2}"$  X 7" DEEP SLOT AT THE EXPANSION ENDS FOR A  $\frac{1}{4}"$  DIAMETER SMOOTH DOWEL. SEE PLAN AND ELEVATION SHEET FOR LOCATION OF FIXED AND EXPANSION ENDS.
- TOPS OF BEAMS SHALL BE ROUGH FLOATED AT APPROXIMATELY THE TIME OF INITIAL SET. ENTIRE TOP SHALL BE SCRUBBED TRANSVERSELY WITH A COARSE BRUSH TO REMOVE ALL LAITANCE AND TO PRODUCE A ROUGHENED SURFACE FOR BONDING TO THE SLAB. ROUGHENED SURFACE SHALL HAVE AN AMPLITUDE OF APPROXIMATELY  $\frac{1}{4}"$ . CONCRETE FINS OR PROJECTIONS SHALL BE REMOVED TO PRODUCE A VERTICAL FACE AT THE EDGE OF THE BEAM.
- NON-COMPOSITE DEAD LOAD DEFLECTION ( $\Delta NC$ ) AT THE MIDPOINT IS DUE TO THE WEIGHT OF THE SLAB AND COPING.
- COMPOSITE DEAD LOAD DEFLECTION ( $\Delta C$ ) AT THE MIDPOINT IS DUE TO THE WEIGHT OF RAISED MEDIAN, PARAPET AND SIDEWALK.
- STRANDS SHALL MEET ALL REQUIREMENTS OF ASTM A 416 GRADE 270.
- PRESTRESSING DATA IS AS FOLLOWS:
  - USE 52 - 0.6" DIAMETER (A = 0.217 SQ IN) LOW RELAXATION STRANDS. PRETENSION TOP FOUR (4) STRANDS TO 23,436 LBS EACH. PRETENSION BOTTOM STRANDS TO 43,943 LBS EACH.
  - PRETENSIONED STRANDS SHALL BE RELEASED AFTER THE CONCRETE HAS REACHED A MINIMUM STRENGTH ( $f'_c$ ) OF 6,500 PSI.
  - INCLUDING THE TOP STRANDS, THE TOTAL JACKING FORCE OF PRETENSIONING IS 2,203,008 LBS.
  - INCLUDING THE TOP STRANDS, THE NET PRESTRESSING FORCE OF THE STRANDS AFTER ALL LOSSES IS 1,555,166 LBS.
- CONCRETE STRENGTH ( $f'_c$ ) = 9,700 PSI.
- ALLOWABLE PSC BEAM TENSION = 590 PSI.



MAINTAIN 1" MINIMUM CLEARANCE UNLESS SHOWN.  
• INDICATES 0.6" DIAMETER PRESTRESSED STRANDS.

SECTION AT MIDPOINT

SECTION AT END



- DIAPHRAGM BAR SHALL BE A 1" DIAMETER PLAIN BAR, THREADED 5" ON EACH END, WITH  $\frac{1}{4}"$  X  $3\frac{1}{2}"$  DIAMETER WASHERS AND HEX NUTS (ASTM A 709 GRADE 36).
- DIAPHRAGM BAR SHALL BE TIGHTENED AS PER SUB-SECTION 507.3.05.C OF THE GEORGIA DOT SPECIFICATIONS.
- AFTER EXCESS DIAPHRAGM BAR HAS BEEN CUT OFF, END OF DIAPHRAGM BAR, WASHER, AND NUT EXPOSED IN RECESS SHALL BE PAINTED WITH SPECIAL PROTECTIVE COATING NO.2 P AS PER SECTION 535 OF THE GEORGIA DOT SPECIFICATIONS. AFTER PAINTING, THE RECESS SHALL BE FILLED WITH AN APPROVED EPOXY GROUT.
- GALVANIZING OF DIAPHRAGM BAR AS PER SUB-SECTION 865.2.01.B.12 OF THE GEORGIA DOT SPECIFICATIONS IS NOT REQUIRED.

RECESS DETAIL FOR DIAPHRAGM BAR ENDS

BRIDGE NO. 1

DRAWING NO.  
35-09

THE LPA GROUP

THE LPA GROUP INCORPORATED  
TRANSPORTATION CONSULTANTS  
3505 ENGINEERING DRIVE  
NORCROSS, GEORGIA 30092  
(770) 263-9118

GEORGIA  
DEPARTMENT OF TRANSPORTATION  
PRECONSTRUCTION DIVISION-OFFICE OF BRIDGE DESIGN

BULB TEE, 74 IN PSC BEAM - SPAN 1  
HAMMOND DRIVE OVER SR 400  
FULTON COUNTY CSNHS-0008-00(415)

NO SCALE NOVEMBER 2009

BRIDGE SHEET  
9 OF 25

DESIGNED ANZ  
DRAWN BSB

CHECKED AWB  
DESIGN GROUP ACB

REVIEWED WEI/WMD  
APPROVED PVL